

# Kansas State Fire Marshal – Fire Prevention Division

References (s): K.S.A. 31-133

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## FIRE FACT 006 – CARBON MONOXIDE

Carbon monoxide (CO) exposures occur every year in Kansas. Carbon monoxide exposures can be easily prevented by understanding the risk and taking some simple preventative measures.

### ***Exposure Risk***

Carbon monoxide is a colorless, odorless gas (not "fumes") given off as a by-product of the combustion of fuels commonly used for heating, such as propane, natural gas, kerosene, and charcoal. *Human senses can't detect CO* – the first indication of its presence may be the symptoms of obvious poisoning. Due to the nature of the gas and the effect on the human physiology, it produces a potentially fatal type of poisoning that also renders the victim unable to perform self-rescue.

Improper or impaired venting of heating appliances is the most common cause of CO exposure. Without appropriate venting, the products of combustion from a heating appliance can be released into the living space of a building, most often at a time of year when the building is sealed up tight to keep the heat in. Heating appliances that burn fuels also need sufficient fresh air for combustion, and a tightly sealed building may not allow the air to enter except through the vent. This may also impair proper venting. The lack of fresh air exchange in a sealed building can allow the CO levels to steadily increase. Since CO is not detectable by human senses, occupants of a building may simply go to "sleep" and never wake up unless somehow rescued by others. It is important to note ALL appliances using the fuels listed above give off CO. It becomes a threat to humans only when the CO is allowed to collect in an occupied space.

### ***Exposure Prevention***

The key to preventing CO poisoning is ensuring proper operation and venting of appliances. The best way to ensure proper venting is by having qualified service personnel thoroughly check the appliance periodically. Venting problems are typically rather easy to correct and the cost of a yearly inspection prevents the much higher costs of medical care and possible litigation if an exposure occurs.

CO detectors are available and may be useful for warning of a CO problem. However, the best way to handle the potential risk is to practice *active prevention*.

**Remember: an ounce of prevention is worth a pound of cure.**